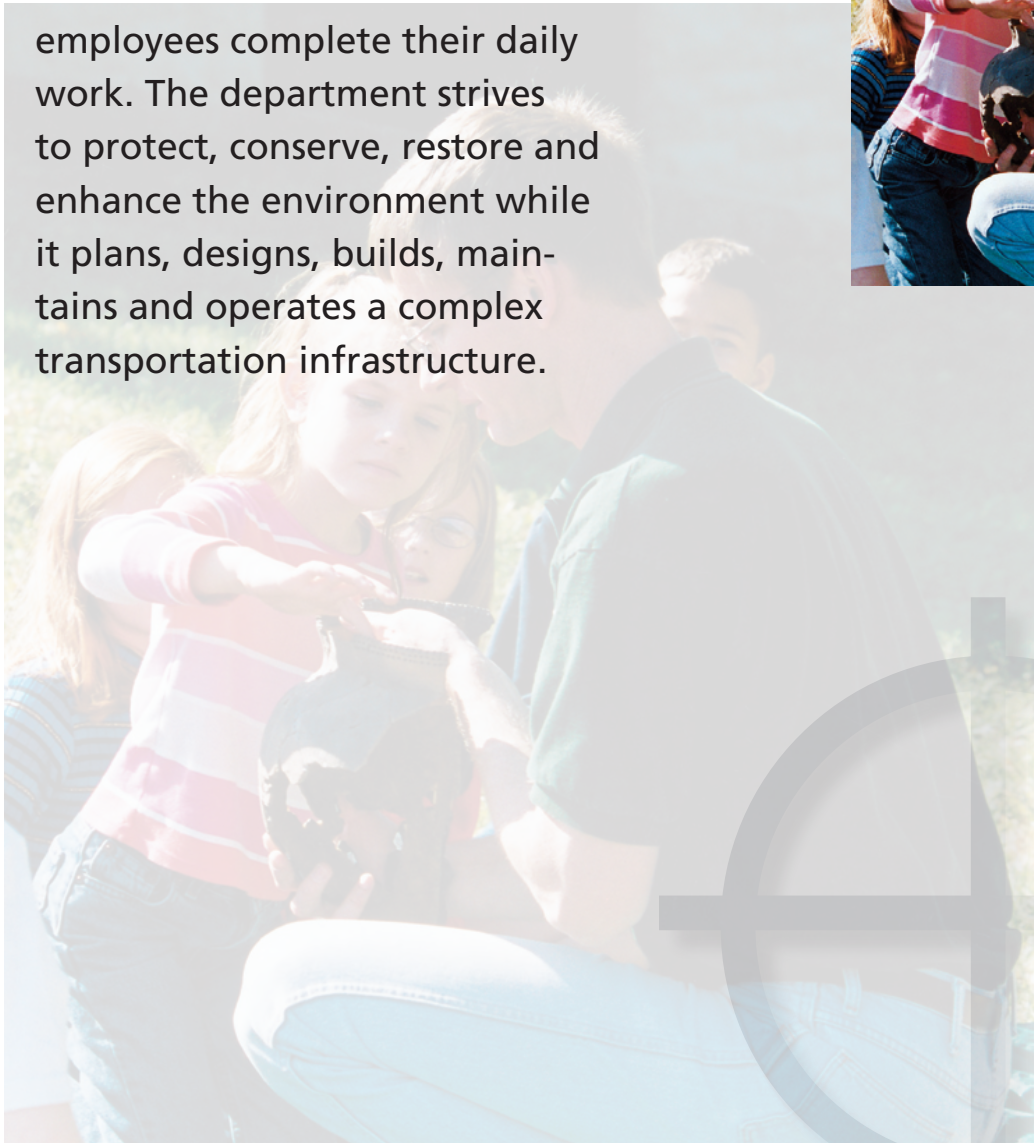

Environmentally Responsible

*Tangible Result Driver – Dave Nichols,
Director of Program Delivery*

MoDOT takes great pride in being a good steward of the environment, both in the construction and operation of Missouri's transportation system and in the manner in which its employees complete their daily work. The department strives to protect, conserve, restore and enhance the environment while it plans, designs, builds, maintains and operates a complex transportation infrastructure.



Environmentally Responsible

Percent of projects completed without environmental violation

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Kathy Harvey, State Design Engineer

Purpose of the Measure:

This measure tracks environmental violations. MoDOT projects must comply with several environmental laws and regulations. In order to be in compliance, MoDOT makes commitments throughout the project development process that must be carried forward during construction and maintenance. In addition, the various permits obtained for projects also contain specific requirements for compliance. If a violation is noted, it can result in either a Letter of Warning or a Notice of Violation to MoDOT.

Measurement and Data Collection:

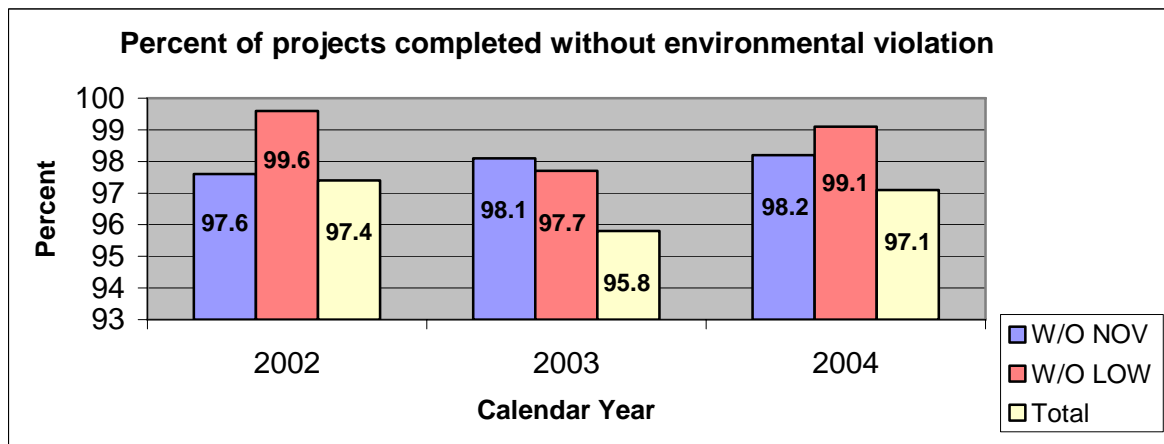
Both LOWs and NOVs are written correspondence to MoDOT from regulatory agencies, which are tracked in a MoDOT database by location or project number, as appropriate. Where tracked by project, the violations received may span several years. The first chart below is based on a calendar year of construction projects reported to be completed during that year and the number of violations received on those projects over the life of the project. The second chart is a report by calendar year of the LOWs and NOVs received by the department for any activity.

Improvement Status:

The graph for the past three years shows a relatively level trend line. However, based on a few serious violations received in 2004, the department implemented several strategies to achieve a possible decrease in violations this calendar year. An Environmental Quality Circle was formed in September 2004 that has completed the first phase of an environmental action plan for the department. The action plan will be implemented over the next several months. In addition, all department environmental staff has been consolidated into one unit that will result in improved efficiencies in the environmental area by providing the department with “one-stop shopping.”

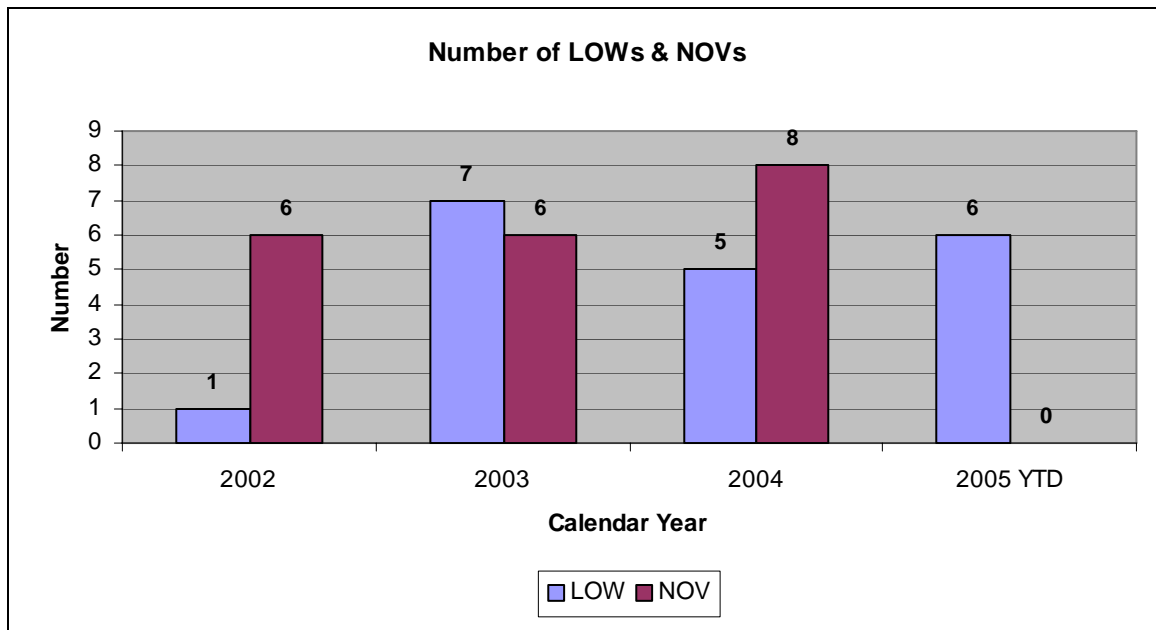
Staff conducted national research to determine if an appropriate benchmark state exists. An appropriate benchmark state was not found. MoDOT believes that the benchmark to use is 0 percent NOVs. A small number of LOWs can be tolerated since they are by reference only warnings, but it is unacceptable to the department to have a violation. Regardless of what other states are doing, MoDOT has a zero-tolerance policy.

For the first three quarters of 2005, MoDOT has received zero Notices of Violation and six Letters of Warning. The LOWs were for one construction project, two rest areas and three maintenance lots. Based on this trend, the department will be conducting an inspection of all maintenance lots over the next few months to determine what actions, if any, are needed to avoid similar LOWs in the future.



**Desired
Trend:**





**Desired
Trend:**

Environmentally Responsible

Number of projects on which MoDOT protects or restores sensitive species or habitat

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Kathy Harvey, State Design Engineer

Purpose of the Measure:

Missouri is home to many rare species of plants and animals, some of which are on the federal endangered species list. The Endangered Species Act of 1973 (as amended) prohibits harm or harassment of these species. Avoiding or minimizing harm to these species and protecting or restoring their habitat is a fundamental obligation of this organization. Avoidance and/or protection is the first goal of our efforts, but restoration is the minimum acceptable result.

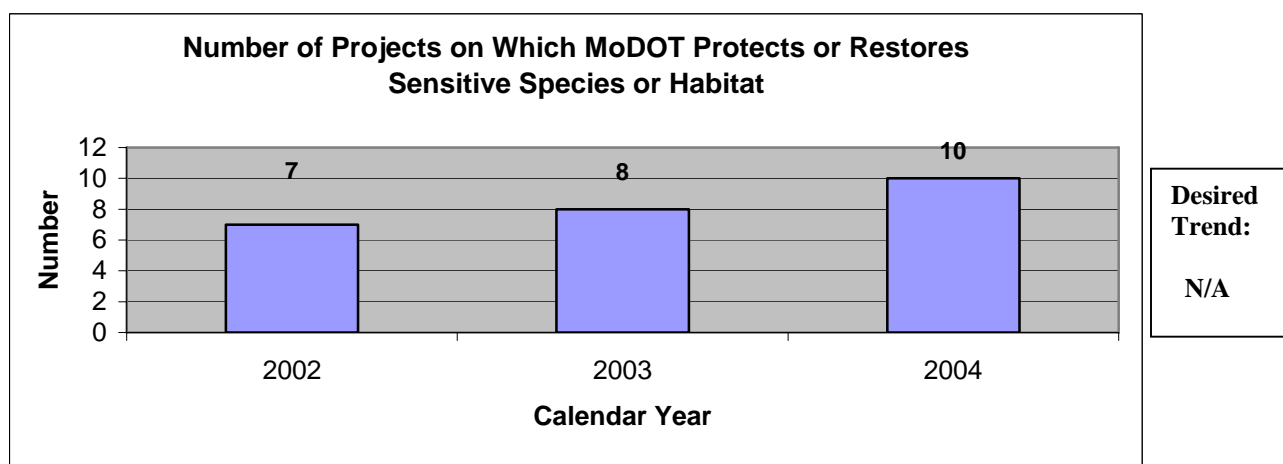
Measurement and Data Collection:

This measure is tracked annually by calendar year. On all MoDOT projects, the department investigates and informs the US Fish and Wildlife Service of any activity in the vicinity of a known threatened or endangered species or critical habitat. Through this consultation with them, primarily through letters, MoDOT has the data to report on this measure. Because this measure focuses on projects that protect or restore sensitive habitats that could not initially be avoided, many MoDOT projects are not included in this data.

Improvement Status:

There is no desired trend with this measure; the number reported will fluctuate depending on our program each year, type of projects being constructed, location and just the ability to make adjustments to avoid impact on sensitive species or habitat. It can be assumed that as MoDOT's program increases the number will go up.

During the first three quarters of 2005, there have been nine additional projects where MoDOT has protected or restored sensitive species or habitat. This includes the following species: Ozark Cave Fish (twice), Missouri Bladderpod, Indiana Bat, Gray Bat, Pallid Sturgeon, Ozark Hellbender, Bald Eagle and the Topeka Shiner.



Environmentally Responsible

Percent of air quality days that meet Environmental Protection Agency standards by metropolitan area

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Machele Watkins, Transportation Planning Director

Purpose of the Measure:

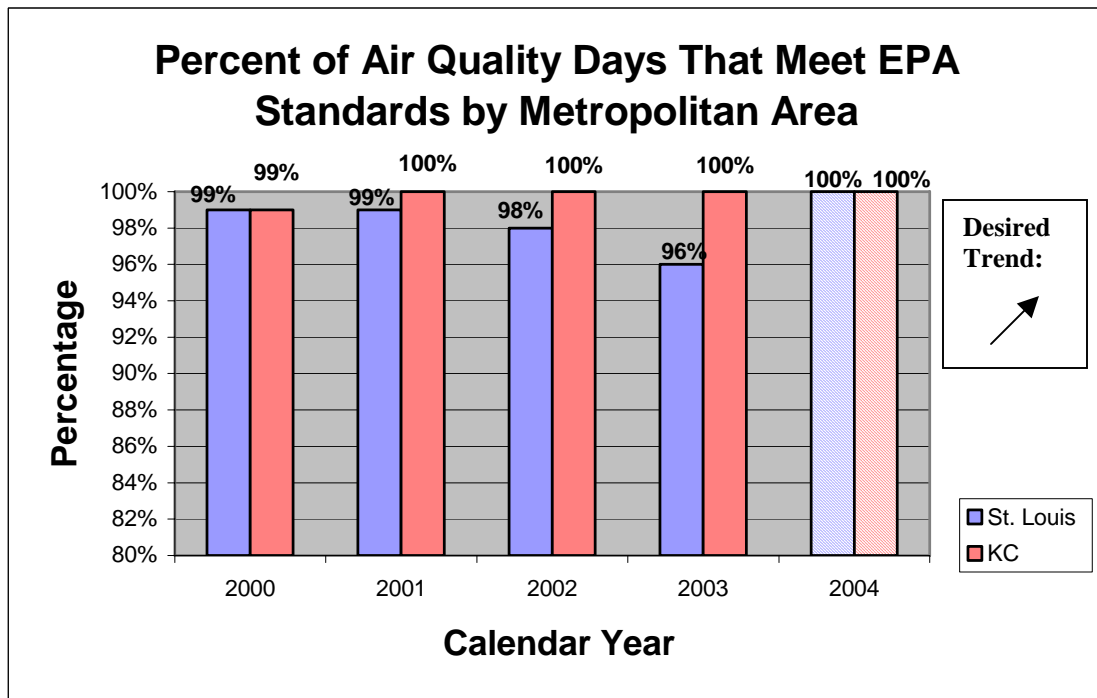
This measure tracks MoDOT's role in improving the air quality of Missouri's metro areas. The Environmental Protection Agency approves state plans to improve air quality. MoDOT makes every effort to design and build roads that meet air quality standards and do not violate the EPA-approved plans.

Measurement and Data Collection:

EPA establishes several air quality standards for the United States. The ground level ozone standard affects Missouri. Ozone readings are collected in Kansas City and St. Louis during the ozone season – April through October. The data contained in the table below reflects the available percentage of days, by metro area, that met the EPA's ground level ozone standard. The data for the 2005 ozone season has not been received at the time of printing.

Improvement Status:

MoDOT's efforts coupled with milder than normal weather in 2004 contributed to 100% positive air quality days as measured by EPA standards. Changes in EPA standards and warmer than normal weather during the 2005 ozone season may contribute to a reduction in the percentage of positive air quality days.



Environmentally Responsible

Percent of alternative fuel consumed

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Dave DeWitt, Deputy Administrative Officer

Purpose of the Measure:

This measure tracks the use of alternative fuels. It shows MoDOT's contribution toward environmental responsibility and conservation of resources.

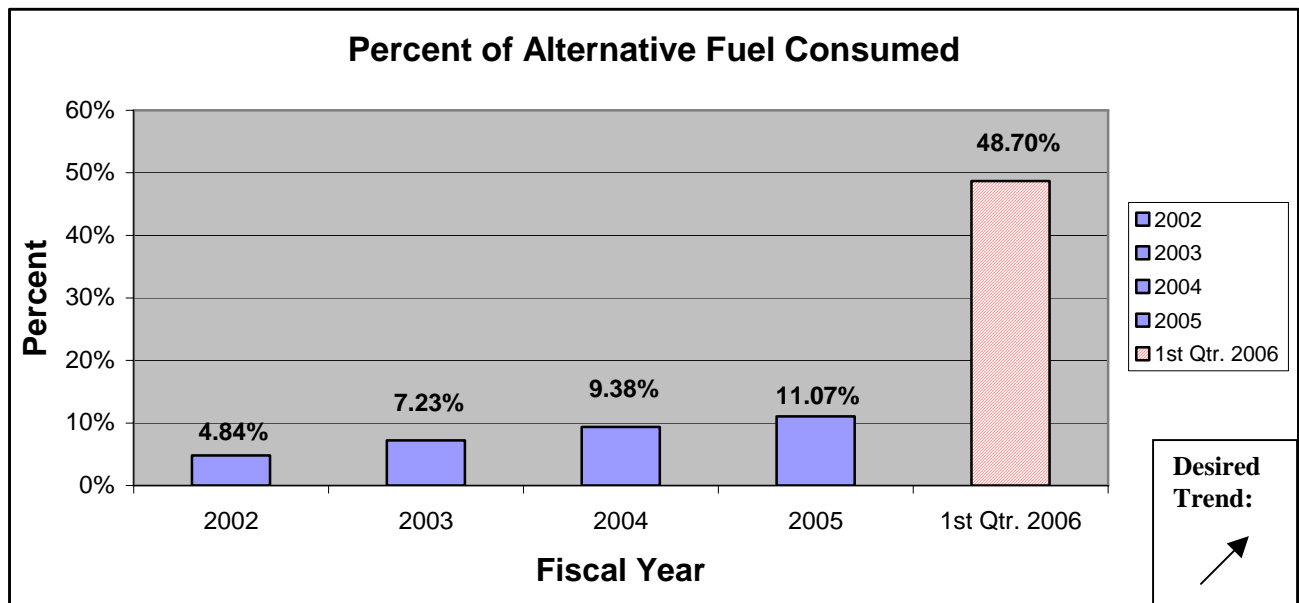
Measurement and Data Collection:

Alternative fuel is E-85 and biodiesel. When a user pumps fuel into a MoDOT vehicle or piece of equipment, that usage by gallon and by fuel type is captured in the SAM II system. Reports are generated to extract the number of gallons used from that system.

Improvement Status:

There was a significant increase in the usage of biodiesel during the first quarter. This is a result of MoDOT partnering with the Missouri Soybean Association to educate our employees and our fuel vendors. Vendors were trained on MoDOT's requirements and our employees gained knowledge about using the product. This effort eliminated some of the myths regarding biodiesel and resulted in our employees building strong relationships with our vendors. Availability of biodiesel continues to be a problem in the south central and southeast districts of the state. Education and communication with fuel vendors in these districts continues and will improve availability. Until we are guaranteed that the use of biodiesel will not cause interruptions to winter operations, we will pilot usage in two districts.

Currently the department operates two E-85 bulk fuel stations and is planning to install others in District 4 and District 7 in FY 07.



Environmentally Responsible

Number of historic resources avoided or protected as compared to those mitigated

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Bob Reeder, Historic Preservation Coordinator

Purpose of the Measure:

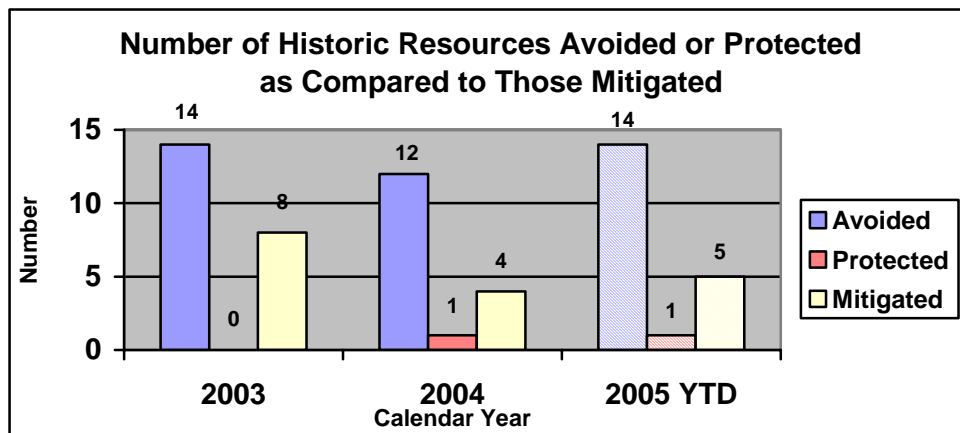
Federal historic preservation laws relating to federally-funded projects, gaining public and agency support for particular projects, and general environmental stewardship require MoDOT to avoid, minimize, or mitigate project impacts to historic buildings and bridges whenever feasible. Compiling information about projects impacts to important cultural resources provides a measure of MoDOT's success at avoiding, protecting, or mitigating project impacts to important cultural resources.

Measurement and Data Collection:

Data collection begins at the approved Conceptual Plans stage. As project design plans and right of way plans are prepared by the district, department staff track the number of historic resources in project footprints and the number of resources that can be avoided or protected by MoDOT revising the design of a project versus the number of resources MoDOT can not avoid and must be mitigated. The data include only historic resources identified as potentially affected by projects after the conceptual plan stage. The data do not include historic resources avoided during early project planning or those avoided during consideration of different alignments during NEPA studies.

Improvement Status:

The 2005 information is for the first three quarters of the calendar year. MoDOT's overall success at minimizing and avoiding project impacts to historic resources is illustrated by only five historic resources ultimately being impacted by any MoDOT project during the first nine months of 2005 and requiring mitigation. Very early project design efforts to lessen project impacts to significant historic resources were successful, resulting in only twenty resources remaining in project footprints at the conceptual plans stage. MoDOT continued trying to reduce project impacts to historic resources during final design of the projects and fourteen of the twenty resources were subsequently avoided. One resource could not be avoided but is protected or preserved in the project footprint. Thus far in 2005, only five historic resources could not be avoided and required mitigation. Four of these were older bridges requiring replacement. MoDOT's goal is to maximize the number of historic resources avoided and minimize the number of resources impacted and mitigated. This measure has no overall desired trend. For any year, data for the measure will vary due the number of projects in the MoDOT program and the specific nature of those projects; however, the overall effectiveness of MoDOT's historic preservation efforts is reflected by MoDOT's 2005 projects to date have required the mitigation of only five historic resources.



**Desired
Trend:**

N/A

Environmentally Responsible

Ratio of acres of wetlands created compared to the number of acres of wetlands impacted

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Gayle Unruh, Environmental & Historic Preservation Manager

Purpose of the Measure:

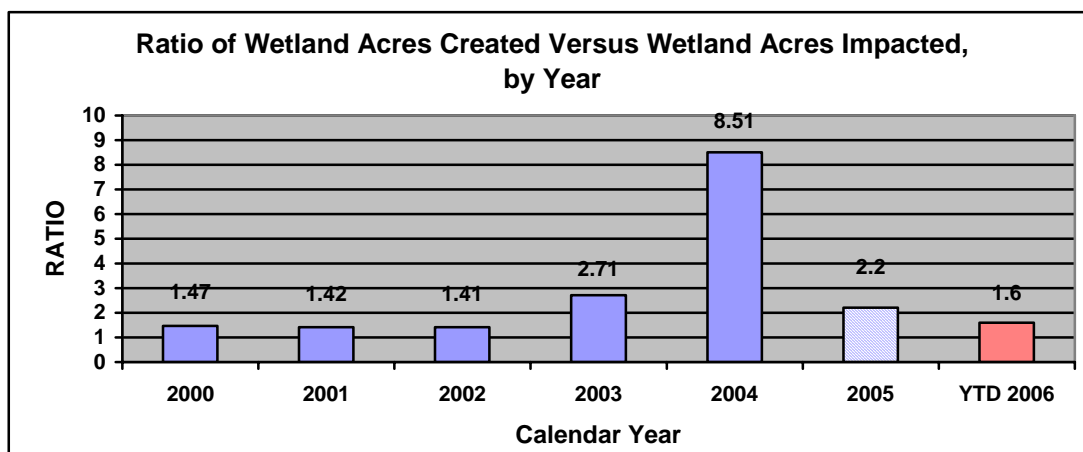
Wetlands are a valuable resource in Missouri, having beneficial functions such as wildlife habitat, flood storage and water quality improvement. In addition to these benefits, it is required in the Clean Water Act that impacts to wetlands be avoided or minimized or that wetlands are recreated when a wetland is destroyed during a transportation project. MoDOT has unavoidable impacts on wetlands and thus recreates wetlands. The national goal, set by the FHWA, for recreating wetland is to construct 1.5 acres of wetland for every 1.0 acre of wetland impacted. Recreating wetlands at this ratio helps to offset the lost beneficial functions during the time it takes for a wetland to develop, which in the case of forested wetlands can be a considerable time period. This measure helps ensure that MoDOT is doing its part to maintain wetlands in Missouri.

Measurement and Data Collection:

Acres of impact will be taken from Clean Water Act permits and will be listed by project. Acres of wetland construction will be taken from roadway design plans or mapped wetland areas recreated by MoDOT, again listed by project. Impacts may occur in a different year from the mitigation, so for the purposes of this measure, timeframe for the reporting is when the mitigation construction is complete based on a calendar year.

Improvement Status:

MoDOT improved in 2005 by replacing wetlands at a rate of 2.2 to 1 and for year-to-date 2006 improved even more with a ratio of 1.6 to 1. Statewide training targeting the interpretation and attention paid to wetland development plans was conducted with construction inspectors and resident engineers to help achieve this improvement. However, mitigation for violations of the Clean Water Act in 2003 will be built in FY 2006. These acres of mitigation will be reflected in the next Tracker. The statewide training also targeted the causes for those violations so that mitigation for projects other than the violations is very near the benchmark of 1.5-to-1. Since this measure is also tracked by other states through FHWA, MoDOT contacted FHWA to find out which states are successful at meeting the 1.5 to 1 ratio. Although, FHWA does not give out the statistics on the ratio for each state, they did give MoDOT a list of states that are very successful at meeting this ratio. Some states have mitigation ratios set by state laws that exceed the 1.5-to-1 ratio. Thus, in complying with the state law they are successful for the FHWA measure. Most of the states queried said that the biggest factor in successfully meeting the ratio is in the use of wetland mitigation banks. They had greater control over achieving their target ratios and had better wetland success when they had mitigation banks in place. MoDOT is in the final stages of establishing a statewide wetland mitigation banking agreement and two bank sites are in the planning stages for proposal to the regulating agencies.



Environmentally Responsible

Number of trees planted compared to number of acres cleared

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Jerry Hirtz, Technical Support Engineer, Construction & Materials

Purpose of the Measure:

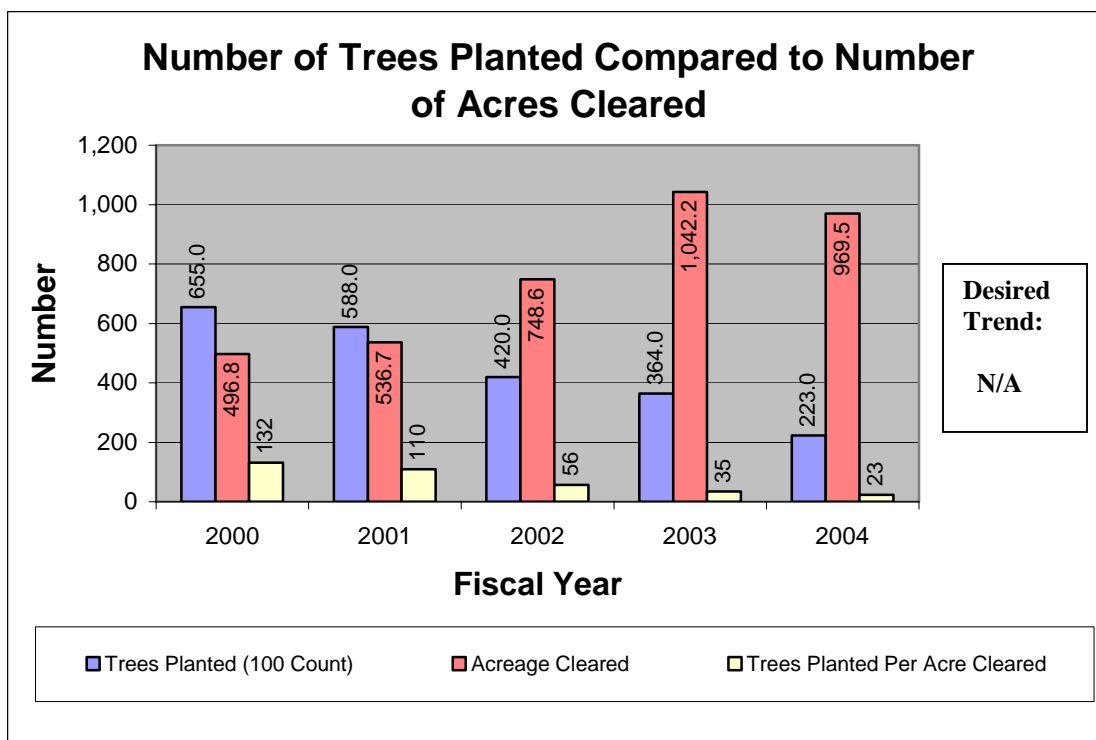
This measure tracks MoDOT's effort to replace trees removed as a result of clearing operations on its construction projects.

Measurement and Data Collection:

MoDOT has committed to plant two trees for each six-inch-or-larger tree removed by construction operations. MoDOT documents acreage cleared through its contract administration processes and a record is maintained of trees ordered each year for spring planting. In the future, this measure will be amended to compare trees planted to trees removed as the data becomes available.

Improvement Status:

Over the past several years, areas cleared for construction have steadily increased and the number of trees planted has decreased. Close monitoring has allowed staff to better assess how MoDOT is meeting its tree replacement obligations and should improve the previous deficiency.



Environmentally Responsible

Number of tons of recycled/waste materials used in construction projects

Result Driver: Dave Nichols, Director of Program Delivery

Measurement Driver: Joe Schroer, Field Materials Engineer

Purpose of the Measure:

This measure tracks MoDOT's efforts to be environmentally conscious while being fiscally responsible through the use of recycled/waste material when applicable.

Measurement and Data Collection:

The number of tons of recycled/waste material used in construction projects is measured through MoDOT's construction management database which tracks material incorporated into projects. Data is collected on an annual basis.

Improvement Status:

Available data from 2004 and through the end of September 2005 has been included. The data for 2005 shows that the amount of recycled/waste material incorporated into projects during 2005 has already surpassed the amount used in 2004. Project specifications were revised to allow a greater amount of recycled materials in asphalt and concrete mixtures. An increase due to the Smooth Roads Initiative program accounts for such a large increase in hot mix asphalt as contractors have used these materials to augment virgin aggregate shortages. We continue to evaluate materials provided by contractors and modify specifications to allow acceptable materials. Contractor successes will be passed on to encourage use.

